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AROUND THE LAKES.

CLEVELAND.

Captain Henry Brock stripped and laid up his schooner, S. V. R. Watson at Buffalo and returned to Cleveland for the winter.

The United States has an iron fire tug, the Rescue of 111 tons, stationed at Washington for the protection of property along the river.

Thomas Dove, of Norwalk, Ohio, contemplates building a steam yacht, and the work will probably be done at Huron, Ohio. She is to have a 12x12 engine.

The schooner John J. Hill, while made fast to the dock at the rolling mill, received a slight blow from the propeller N. K. Fairbanks, which caused her to sink.

Mr. J. F. Holloway, president of the Cuyahoga Furnace Co., was elected president of the National Association of Mechanical Engineers, at the recent meeting in New York City.

At Globe drydock, since the last report, the propeller N. K. Fairbanks had her buts calked, a leak stopped and her stern bearings fixed, and the schooner Negaunee had her bottom calked. The propeller Cumberland will go in to-day to have a leak stopped and her wheel patched, after which the propeller R. J. Hackett will have her buts calked, her bottom searched and a leak stopped. The propeller A. Everett will then receive a thorough calking, preparatory to laying up for the winter.

Arthur Devine harbor master appeared in the Police Court Friday to prosecute a case against Edward Lewis, who, it was claimed disobeyed Devine's orders. Mr. Lewis' vessel, the Queen City, was anchored at the dock of the Lake Erie Iron Company and a person whom Arthur supposed to be in charge was commanded to move the schooner. He refused and the harbor master caused his arrest. It was shown in court that as the dock had been rented by the owner of the vessel he had a right to keep it there, and the case was accordingly dismissed.

The steamer Raleigh, Captain Leonard, which went ashore on Thursday night in a fog near Madison Dock, about fifteen miles west of Ashtabula, was released by the tugs Dragon and Red Cloud of Ashtabula. The Raleigh was not damaged. She was light, having discharged her cargo of ore at Ashtabula, and was on the way to Cleveland for coal to Escanaba, whence she will return with her last ore cargo of the season. The propellers Cumberland and Iron Chief have both been ashore at or near the same place, both mishaps being attributed to fog.

The schooner Thomas Gawn, Captain Nelson, on Monday came to anchor about fifteen miles from Ashtabula, off Madison docks, and hung out a signal of distress. She was sighted by the Fairport life savers, who made every effort to get to her, but without avail, being driven back by the heavy sea. The tug Red Cloud, of Ashtabula, went out to her on Tuesday and will tow her to Erie, her destination, where she will discharge her cargo of ore. She lost in the gale her foremast and boom, jibboom, bowsprit, in fact all of her headgear, but as she is comparatively new she has not suffered further damage. She is insured, \$13,200 covering fifteen-sevenths, the remainder, which belongs to Captain Bradley, not being covered.

W. E. Russell, of Pittsburg, president of

the National Association of Marine Engineers, was in the city this week. Mr. Russell is not now sailing, but his heart is with the boys who are.

S. V. Harkness' steam yacht Twilight arrived from Chagrin Point on the 9th, in tow of the tug C. E. Bolton, and was taken at once to the Globe Iron shipyard and had her guards, wheel, stack, etc., taken off, to allow her to pass through the canal to Portsmouth, on the Ohio river, where she will again be put in order and proceed at once to New Orleans. Mr. Harkness, her owner, will join her at Cincinnati. After spending some time at New Orleans she will proceed on her voyage to Jacksonville, Florida, there to be used by Mr. Harkness in pleasure seeing on the St. Johns river and its tributaries. She left Cleveland on the 13th instant.

The sailor men of this port are having much amusement with the starboard light of the Herald marine columns. It is their custom to direct his attention to careless blunders in other papers and enjoy his attempts to criticize them. His name is Wright, sadly seldom right. The following, among other blunders of the same edition of the Herald, the 18th instant, is very striking:

"The schooner Benedict was sold Saturday in Detroit, at United States marshal's sale, to J. M. Jones for \$1,300. The claim against her amounted to over \$52,000"

Fearing the Herald readers will think that Captain Jones has departed from his usual business tact in thus voluntarily assuming the ownership of a white elephant, we will state that the claim against the boat is but \$400.

FRANKFORT.

Special to the Marine Record.

The schooner Una, of South Manitou Island has stripped and gone into winter quarters here.

The tug L. Q. Rawson, of this port, has gone to Kenosha, Wis., to engage in fishing and towing.

The ferry tug Jay has been hauled out for winter. The ferry Butler is still in commission.

Captain George Waters has laid the keel of a small tug 37 feet long, 9½ feet beam and 5 feet hold. When finished she will be used as a ferry and give excursions.

The schooner Geo. Wescott is making her last trip, when she will winter at Frankfort.

Sail vessels are scarcely ever seen passing, and only occasionally a barge or propeller, so the patrolman of Point Betsy life station informs us. The season has been too unprofitable to take any risks at this time of the year.

MILWAUKEE.

The schooner Itasca, coal laden from Buffalo for Milwaukee, went on a reef off Bailey's Harbor during a fog Saturday, and is two feet out. Tugs have gone to her from Sturgeon Bay. She is valued at \$12,000, and is insured.

The schooner Lucinda Van Valkenburg, over five weeks out from Buffalo, is reported in a disabled condition at the South Manitou. A heavy northerly gale has prevailed on this lake since last night.

BENTON HARBOR.

A large force of ship carpenters are at work on the repairs on the propeller City of St. Joseph, which recently took fire at her dock here and destroyed her upper works. The damage, amounting to \$12,000, has been paid over by the insurance companies.

CHICAGO.

Special to the Marine Record.

The steambarge Jois, while trying to find the harbor in the dense fog Friday morning, found the beach about four miles down the lake. The life saving crew was called to assist her in getting off, but the tug Paddy Murphy had succeeded in performing the work before they arrived.

The buoys on Hyde Park reef, which mark the reef at Hyde Park during the season of navigation, have been removed and large piles were driven to replace them.

The tug Protection, of the V. O. T. line, which has been doing the outside work for the line since she was rebuilt, has been laid up for the season.

The owner of the schooner Gerritt Smith filed a wreck report in the Custom House Friday. He places the damage to the Smith at \$6,000.

The iron propellers Onoko and William Chisholm were laid up at this port last week.

At the Chicago Drydock Company's yard the Mary E. Perew, Captain Mack, of the Marinette Barge Line, is at the derrick getting her three masts taken out, reduced and converted into barge masts. One of the Sand and Gravel Company's scows is getting new ends.

The schooner C. P. Minch, owned by C. W. Elphick, which went ashore at Collingwood, was released and put into drydock for repairs. She is badly damaged. Her cargo of corn is nearly all damaged.

The wreckers at work on the sunken schooner Christine Nilsson have succeeded in recovering 100 tons of her cargo of pig iron. They expect to get the balance before the close of navigation, but it is not likely that the vessel will be raised before spring. She is four feet under the surface, and not likely to sustain much damage from winter gales.

The city has advertised for a tug to do the crib work during the ensuing winter. The following tugs have or will enter bids: Alpha, O. B. Green, John Gordon, Paddy Murphy, Morford, Van Schaik, Admiral, and Tom Brown. The Alpha had the contract last season.

At Miller Brothers Drydock the propeller Gordon Campbell went into drydock for a new sea cock pipe, the steambarge Milwaukee for a wheel, the steambarge Albert Soper for a new shoe and a new pintle to her rudder, the steambarge R. C. Brittain is getting her pilot house and cabin fixed up and repaired, the steam yacht Barney is getting new stanchions and bulwarks, the schooner Lumberman will get new fore and main masts.

The barge David Wallace, Captain Henry Wallace, recently built by Radcliffe, at Cleveland, made her first visit to this port last week. She brought along 1,474 tons of coal from Erie. She is consort of the propeller Henry Wallace, Captain F. H. Brown, which brought along 1,376 tons of coal from Erie. Both of them will lay up here this winter as there are no charters to be obtained.

On Monday last Judge Blodgett rendered an opinion in the admiralty case of the schooner H. W. Sage against the Lehigh Valley Coal Company. A claim was made for demurrage because the vessel was sent to the Empire-slip dock, on the South Branch, to unload, when her charter called for delivery at a dock on the North Branch. While on her way to the former place she

ran aground, and was otherwise delayed. The court allowed three and a half days' detention at \$125 a day and \$37 for towage.

The market for lake freights is just about dead. There is no demand for tonnage. The line boats continue to pick up enough small lots to fill out cargoes, but there are no full cargoes to be had. The propeller Albany loaded 50,000 bushels of corn for Buffalo, and the propeller Juniata 30,000 bushels of flaxseed and 15,000 bushels of corn for Erie. Vessels are being stripped as fast as they get into port. Lumber shipments are about over.

T. W.

TOLEDO.

The Canadian propeller Sir S. Lysle Filley, laden with barley, from Toronto, arrived opposite the city Saturday night, having been delayed several hours by low water in the bay.

The barge City of the Straits was libeled by some longshoremen for wages due for unloading lumber.

The barge Nelson Bloom with 650,000 feet of lumber aboard, ran aground three times in Swan Creek Monday night, owing to the low water.

The trouble between the barge City of the Straits and the Longshoremen has been amicably settled.

MANITOWOC.

A schooner with a capacity for 150,000 feet of lumber was launched at Hansen & Scove's yard, Manitowoc. She is owned by Samuel Hall, of Chicago, and will in all probability be named after Mr. Hall. The vessel has been constructed with special reference to capacity for miscellaneous freight. Her cost is about \$10,000. Mr. Hall expects to get her ready in time to make one or two trips this season, and has pushed work on her with great rapidity.

The Goodrich Transportation Company will lay up the steamer Corona when she arrives at Manitowoc Tuesday. The tugs Paddy Murphy, Alpha, and Commodore are the latest tugs to go out of commission.

PORT COLBORNE.

A heavy fog prevailed on the lake Saturday night, making it difficult for vessels to make the harbor. Early Sunday morning the steambarge Nipigon and two barges, bound to Ogdensburg from Pequaming, laden with lumber, in attempting to make this harbor brought up on a reef east of the piers. Fortunately the lake was calm and they were moving slowly when they struck. Two tugs went to their assistance and succeeded in releasing them and they were towed into the harbor. They sustained no damage.

COLLINGWOOD.

In addition to the two beacons described in notice No. 23 of 1884, a second pair of day beacons has been erected under the direction of Staff Commander Boulton, R. N., to further facilitate the entrance into Club Island Harbor, Georgian Bay, Ont. They are colored white, and are ten feet high, each surmounted by a staff and triangle. The front one stands on the fishery point, the other southwest by west 300 yards from it. In approaching the entrance, to avoid outside shoals, the back beacon should be kept open southward of the front one until the two on the west shore of the harbor are exactly in line, when the bar may be crossed as before directed.

[Continued on 4th page.]

MARITIME LAW.

SONSMITH ET AL. V. THE JAMES P. DONALDSON—SLYFIELD V. SAME—TOWAGE—NEGOTIANCE—GENERAL AVERAGE.

Circuit Court, E. D. Michigan, September 1884.
In admiralty. On appeal from district court.

Moore & Canfield, for libelants, appellants.

Maynard & Swan, for claimant, appellee.

Matthews, Justice. These two libels were consolidated in the district court and dismissed on the hearing. A decree for the libelants was prayed for on two grounds: First, for a loss of the barges by the fault of the propeller in towing the barges on a voyage from Buffalo to Saginaw. Second, in case no fault in towing was proven, then for a proportion of the value of the barges lost, upon the principles of a general average, on the ground that they had been voluntarily cast off and lost during a storm, for the purpose and with the effect of saving the propeller.

As to the first ground, the evidence justifies and requires the conclusion of the district court. There does not seem to be sufficient ground to impute to the propeller any negligence or failure of duty. If any error was committed, it was a mistake of judgment in the exercise of a discretion necessarily vested in the master of the propeller, and which, if a contrary decision can be supposed to have resulted more favorably constitutes neither want of skill nor want of care. The loss of the barges, under the circumstances must be regarded as resulting from the perils of navigation, and for which, under the contract of towage, the propeller cannot be held responsible. It is not necessary to recapitulate the proofs in support of this conclusion. They are fully stated, with the reasons justifying it, in the opinion of the learned judge of the district court, as reported in 19 Fed. Rep. 264, in which upon this part of the case, I fully concur.

There remains, however, the more difficult and doubtful question, whether the libelants are entitled to a decree for a contribution from the appellee, upon the principles of general average, on the ground that the loss of the barges was a sacrifice voluntarily made for the safety of the propeller. The facts and circumstances material in the investigation of this, as a question of law, are not disputed, and are, in substance, as follows: The J. P. Donaldson was a steam propeller, with a crew of 16 officers and men, built for the carrying trade, not an ordinary tug, having no cargo on board on the voyage, during which the loss complained of occurred, but her fuel, amounting to about 120 tons. She had in tow three barges, the Bay City, the George W. Wesley, and the Eldorado, in the order named, on a voyage from Buffalo to Saginaw or Bay City. The Bay City was partly laden with coal, the others were light. The George W. Wesley was a schooner barge; the Eldorado was an old propeller bottom. Neither of them had any power of self-propulsion. The contract of towage was for the voyage, the propeller to receive for her service a proportion of the freight earned by each barge. When near Erie, Pennsylvania, in a fierce storm having been driven by force of wind and waves, and in a blinding snow, they were drifting near the rocks on shore and in imminent peril of stranding. The propeller, having signaled her tow to that effect, cut the towing line and cast them off. They were driven on shore and wrecked. The propeller at once put into the harbor of Erie in safety. It is a reasonable conclusion that if the propeller had not cut loose her tow, all would have gone ashore together.

The libels in the present cases do not pray specifically for an adjustment of a general average loss. On the contrary, they pray for a decree against the propeller for the full amount of the loss, on the ground that it resulted from the breach of duty on the part of the propeller in not properly performing the contract of towage. But, under the prayer for general relief, it is competent for the court to pass such decree as may be required by the proof in the record, although not fully and precisely stated in the libel. In this particular the case of Dupont v. Vance, 19 How. 162, is quite in point. And in that case, speaking of jettison of cargo, Mr. Justice Curtis, delivering the opinion of the court, said:

"If it be made to relieve the adventure from a peril which has fallen on all the subjects engaged in it, the risk of which peril was not assumed by the carrier, the charge is to be borne proportionably by all the interests, and there is a lien on each to the extent of its just contributory obligation."

In the case of Columbian Ins. Co. v. Ashby, 13 Pet. 331, in the learned opinion of Mr. Justice Story, it is shown that the rule as to general average, derived to us from the Rhodian law through the Roman jurisprudence, was not confined to the case of jettison of cargo, although that was the illustration stated in the digest: "That the case of jettison was here understood to be put as a mere illustration of a more general principle, is abundantly clear from the context of the Roman law, where a ransom paid to pirates to redeem the ship is declared to be governed by the same rule. And the doctrine, as received among all maritime nations, was stated to be—'First, that the ship and cargo should be placed in a common imminent peril; secondly, that there should be a voluntary sacrifice of property to avert that peril; and, thirdly, that by that sacrifice the safety of the other property should be presently and successfully attained.'"

It was generally admitted that in case of voluntary stranding of the ship, if the vessel was saved, the principle of general average applied; but it was contended by some that it was not so if the vessel was lost; and such was the opinion of Emerigon, who said: "But it will be a general average if the stranding has been made for the common safety, provided, always, that the ship be again set afloat; for if the stranding be followed by shipwreck, then it is, save who can." 1 Emer. Ins. c. 12, § 13, p. 614. But, in opposition to this opinion, it was decided by the supreme court that the total loss of the ship did not prevent the application of the principle, saying, (page 340,) "It is the safety of the property, and not of the voyage, which constitutes the true foundation of general average;" and, in another place, (page 343,) "for the general principle certainly is that whatever is sacrificed voluntarily for the common good is to be recompensed by the common contribution of the property benefited thereby." The same result had been previously reached by Mr. Justice Washington, in *Cazv. Reilly*, 3 Wash. C. C. 298.

In *Barnard v. Adams*, 10 How. 270, it was said that—

"In order to constitute a case for general average three things must concur: (1) A common danger,—a danger in which ship, cargo, and crew all participate,—a danger imminent and apparently inevitable, except by voluntarily incurring the loss of a position of the whole to save the remainder; (2) there must be a voluntary jettison, *jactus*, or casting away of some portion of the joint concern for the purpose of avoiding this imminent peril, *periculi imminentis evitandi causa*, or, in other words, a transfer of the peril from the whole to a particular portion of the whole; (3) this attempt to avoid the imminent common peril must be successful."

In that case the principal question arose upon the proposition urged in argument, "that if the common peril was of such a nature that the *jactus* or thing cast away (which was the ship) to save the rest would have perished anyhow, or perished inevitably, even if it had not been selected to suffer in place of the whole, there can be no contribution." But this was negatived, Mr. Justice Grier, delivering the opinion of the court, saying that—

"It is a denial of the whole doctrine upon which claim for general average has its foundation. * * * The *jactus* is said to be sacrificed, not because its chance of escape was separate, but because of its selection to suffer, be it more or less, instead of the whole, whose chances of safety, as a whole, had become desperate. The imminent destruction of the whole has been evaded as a whole, and part saved by transferring the whole peril to another part."

In the case of *McAndrews v. Thatcher*, 3 Wall. 347, Mr. Justice Clifford, delivering the opinion of the court, said:

"Natural justice requires that, where two or more parties are in a common sea risk, and one of them makes a sacrifice or incurs extraordinary expenses for the general safety, the loss or expenses so incurred shall be assessed upon all in proportion to the share of each in the adventure; or, in other words, the owners of the other shares are bound to make contribution in the proportion of the value of their several interests. Courts universally admit that the Rhodian law was the parent of maritime contribution, although, in terms, it made no provision for any case of general average, except for that

of jettison of good as the means of lightening the vessel. But the rule, as there laid down, has never been understood as being confined to that particular case, but has always been regarded as a general regulation applicable in all cases falling within the principle on which it is founded."

Therefore, it has been extended, as in that case, to instances of involuntary stranding of the ship, when extraordinary expenses are incurred in the successful relief and rescue of both ship and cargo, menaced by a common destruction, but only for such as are incurred while the community of interest continues. If the cargo, as in that case, has been separately saved, and has been severed from its connection with the ship and its peril, subsequent expenses incurred for the benefit of the ship alone, and not part of a continuous series undertaken originally on behalf of both interests, are not the subject of a general average contribution.

"Doubts at one time were entertained," said the supreme court in the case of the *Star of Hope*, 9 Wall. 203-231, "whether a loss occasioned by a voluntary stranding of the vessel, even though it was made for the general safety and to avoid the probable consequences of an imminent peril to the whole adventure, was the proper subject of general average contribution; but those doubts have long since been dissipated in most jurisdictions, and they have no place whatever in the jurisprudence of the United States." In that case it was also said, (page 228:)

"Authorities may be found which attempt to qualify this rule, and assert that, when the situation of the ship was such that the whole adventure would certainly and unavoidably have been lost if the sacrifice in question had not been made, the party making it cannot claim to be compensated by the other interests, because it is said that a thing cannot be regarded as having been sacrificed which had already ceased to have any value; but the correctness of the position cannot be admitted, unless it appears that the thing itself for which contribution is claimed, was so situated that it could not possibly have been saved, and that its sacrifice did not contribute to the safety of the crew, ship, or cargo. Sacrifices, when there is no peril, present no claim for contribution; but the greater and more imminent the peril, the more meritorious the claim for such contribution, if the sacrifice was voluntary, and contributed to save the associated interests from the impending danger to which the same were exposed. Such claims have their foundation in equity, and rest upon the doctrine that whatever is sacrificed for the common benefit of the associated interests shall be made good by all the interests which were exposed to the common peril, and which were saved from the common danger by the sacrifice. * * * It is not necessary that there should have been any intention to destroy the thing or things cast away, as no such intention is ever supposed to exist. On the contrary, it is sufficient that the property was selected to suffer the common peril in the place of the whole of the associated interests, that the remainder might be saved."

The general doctrine was again stated by the supreme court in the case of *Fowler v. Rathbones*, 12 Wall. 102, in the following comprehensive language:

"Where two or more parties are engaged in the same sea risk, and one of them, in a moment of imminent peril, makes a sacrifice to avoid the impending danger, or incurs extraordinary expenses to promote the safety of all the associated interests, common justice requires that the sacrifice so made, or the extraordinary expenses so incurred, shall be assessed upon all the interests which were so exposed to the impending peril, and which were saved by those means from the threatened danger, in proportion to the share of each in the joint adventure."

The interests usually associated together, in reference to which questions of contribution in general average commonly arise, are those of ship, cargo, and freight; but the language in which the rule is defined, as already quoted, does not restrict it to that association of interests. The right of contribution depends upon an equity arising out of the relation of the parties, and is not based upon the contract of carriage. The obligations of the carrier, indeed, as contained in the usual bill of lading, do not embrace the case of a part of the cargo carried on deck with the consent of the shipper, and not in pursuance of a custom of the particular trade; and the carrier is therefore in such a case not liable, as such, for a jettison of such cargo necessary for the common safety. The loss is by the perils of navigation, and excepted from the liability of the carrier. Neither is there any right of contribution, as between the deckload cast overboard and the cargo under deck, unless the

deckload was carried in pursuance of a general custom of the trade, to which the owners of the other cargo must be presumed to take notice and to assent to. In that event the right of contribution in case of loss by jettison would arise in favor of the cargo so carried on deck; and, as between it and the ship, it would apply, without reference to such a custom, upon the ground that the ship owners had consented so to carry it. 2 Pars. Mar. Ins. c. 5, § 3, page 217, *et seq.* and cases cited. Hence, in the case of *Lawrence v. Miaturn*, 17 How. 100, the carrier was exonerated from liability as such for the loss of the deckload by jettison, but without prejudice to the right of the shipper to claim for a general average contribution. In cases of jettison of cargo, the performance of the contract of affreightment by transportation of the merchandise is excused by a peril of the sea, while the obligation to contribute in general average on the part of the ship and remaining cargo arises out of the relation of the parties, as brought together into a common and associated interest united in a single adventure and saved from a common peril, as appears from the case of *Dupont v. Vance*, 19 How. 162. The right of the ship to contribution is certainly not founded on the bill of lading; and there is no privity of contract between the various and distinct shippers, between whom, nevertheless, the law implies, upon the facts, the obligation to make good their respective shares of a sacrifice made for a common benefit. It is therefore not inconsistent with the essential nature of the principle, that the right of contribution should be implied between other parties and interests, where relations are established by contract other than between shipper and ship-owner for the transportation of merchandise. Accordingly, the opinion was expressed by Mr. Arnold, (2 Mar. Ins. 398,) that "if a number of ships are lashed together and one takes fire, and the crews of the others unite in scuttling the burning ship for the safety of the rest, the loss of the ship so sunk is a general average loss, to which all those saved thereby must contribute." This opinion, based upon continental authorities alone, Mr. Parsons (2 Mar. Ins. 217, in note) doubts; and it must be admitted that no judicial precedent to that effect has been found in the decisions of either English or American courts; and that the case as put lacks the necessary element of a common interest, united by consent of several owners, delivered by the authorized act of a common agent from an imminent peril, threatening the whole, by the voluntary sacrifice of a part."

[To be continued]

AMERICAN AND ENGLISH STEAMSHIP MODELS.

A writer in the *Ironmonger*, an English trade publication, thus speaks of the relative values of English and American steamship models:

"Recent trials in practical service seem to show that claims made for the type of flat-bottomed steamers are well founded, both as regards speed and fuel economy. The steamer *Finance*, of the United States and Brazil Steamship Company, arrived off the Highlands some weeks since, a few days ahead of time, having made the run from St. Thomas in five days. One of her officers, in commenting on this most satisfactory performance, said: 'We have come in two days ahead of our schedule time and have made excellent speed all the trip, and done it with only 71 lbs. of steam. The speed of the *Finance* is owing, I think, to her model. She is nearly flat on the bottom, and has no keel except her two bilge keels, or rolling keels, as we call them. This gives her great carrying capacity as well as speed. Her bows have a fine entrance, but the body of the ship is carried well forward under the water line, so that when she goes into a sea she rises like a duck, and does not stagger. I think that American built ships have a greater carrying capacity, and develop more speed with less coal than any others in the world.'"

The swift steamship *America* is a much larger vessel than the *Finance*, yet the *America* carries only about 2,000 tons of cargo to the *Finance's* 3,166 tons. The *America* is, of course, the faster ship, but not enough faster to make up for the difference in carrying capacity. The *Finance* can make 14 knots an hour, and the *America* 18. The *Finance* burns from 28 to 30 tons of coal a day and the *America* 175. There is the ship *San Pablo*, typical American ship. She has developed a speed of 16 knots an hour, with a consumption of 32 tons of coal. She carries a dead weight of cargo 4,500 tons. She recently made the fastest passage on record between here and Gibraltar. She is now running between New Tacoma, on Puget Sound, and San Francisco. The round trip takes ten days. In thirty days she made

three round ribs and started on her fourth and has landed 12,500 tons of coal. In nine months she has cost only \$26 for repairs in the engine room. She is built something on the model of the Finance, but has a keel. The City of Rome burns 320 tons of coal a day, and can only carry 1,000 tons of cargo. The great freight ship of the National line is the England, which carries 3,500 tons of cargo. She makes about 13 knots an hour, and can be pushed to 13. The England is 437 9 feet long, 42 1/2 feet beam, and 35 feet depth of hold. The Finance is 300 feet long 38 4 feet beam, and 28 6 feet depth of hold. I do not know the consumption of coal on the England, but will venture to say it is double that of the Finance. The Finance is not, of course, a fast ship, compared with the 'greyhounds of the sea,' but, as you see, attains a respectable speed has great carrying capacity, and besides that, is a passenger ship. And look at the San Pablo, with a speed of 16 knots, a carrying capacity of 4,500 tons, and consumption of only 32 tons of coal. It is all in the model. I believe that a ship as large as the Oregon or America, and with much less engine power, built on the flat-bottom model, would beat their time badly, and have twice or three times their carrying capacity."

CHICAGO HARBOR.

In an article relative to the history and improvement of the Chicago Harbor, the Times says: When the outer breakwater is completed and the outer harbor is dredged to an average depth of sixteen feet, the government will have completed the Chicago harbor as at present projected. This will require the expenditure of \$284,000 in addition to the \$1,720,000 already expended, and the space of two more seasons. The first work of improving this harbor was commenced by the United States government in 1833, by diverting the mouth of the river from a point just about opposite the present Monroe street to its present outlet. This was done by cutting through the long sand bar formed by the northeasterly gales, and which paralleled the river from the bend near the present site of the Illinois Central passenger depot to where the stream emptied into the lake, a full half mile further south. The channel thus made is protected by substantial piling on the north bank. The direction of this pier was about east by south, and was nearly 1,000 feet in length. In 1836 or 1837 the pier was extended 400 feet, and its direction changed to east by north. About the same time a pier was constructed on the south side of the river, running parallel to the north pier. The change of direction proved very unfavorable, as it aided in the formation of a sand bar in the channel just south of the east end of the pier. This suggested a return to first principles, and the change was made by building the pier in a curve to which the south pier would be a tangent, ending in the desired direction. This work was completed about 1840, and in 1852 a pier head was built at the eastern extremity, to be used as the foundation for a beacon light. The lighthouse was constructed in 1850, but at a point about fifty feet north of the pier head, where it still stands. This light has a mean range of eighty-three feet above the lake level, being fixed white and visible for fifteen nautical miles. In 1865 the city of Chicago rendered doubtful aid in the work by extending the north pier a length of 450 feet, adopting the northerly course which had been demonstrated to be radically wrong by former experiments. A board of engineers, consisting of Colonel J. N. Macomb, president of the board; Lieutenant Colonel W. F. Reynolds, United States Army; Major J. B. Wheeler, United States Army; Major G. Weitzel, United States Army, and Major Walter McFarland, convened at Chicago January 18, 1870, and, after making a thorough examination of the harbor, recommended

THE BUILDING OF A BREAKWATER.

to extend south from the mouth of the river. During this year the south pier was extended, 1,224 feet of cribs being put in, but only 614 feet of superstructure was finished. Soundings taken in July and August of the same year showed a channel of thirteen to fourteen feet. The construction of the breakwater was commenced in September, 1870, and by the close of 1872 had been extended southward a distance of 3,050 feet. Since 1872 it has been further extended and improved in various ways. This completed the inclosure of the outer harbor, better known as the basin. Dredges have been constantly working in it since, the intention being to give it a mean depth of not less than sixteen feet. When the vexed question of the ownership of the lake front is definitely settled, it is intended to build slips, extending out a distance of 1,500 feet. This will be necessary to relieve the river from the increased commerce of the future, and will in a degree aid in the abatement of the "bridge nuisance."

When the breakwater was completed it was found that the harbor was a very dangerous trap for craft running back in a gale. With a heavy sea on, it was almost impossible, and at all times highly dangerous for them to try to sail through the narrow opening into the basin, and consequently they had to come to anchor in the mouth of the harbor, thus completely blocking it. This called for additional relief, and the outer breakwater, now being constructed, was commenced. This starts at a point about 4,000 feet off Elm

street, and runs in a southeasterly direction for a distance of 5,400 feet. About 4,000 feet of cribs have already been sunk, and it is expected that the work will be completed in 1886, when the dredging of the basin is also expected to be finished. During the present season work on both has been greatly delayed owing to Congress failing to make an appropriation until the early part of July. The work will be continued on both during the remainder of the present month, and will be commenced as early as the weather will permit next season. When the outer breakwater is completed vessels running into this port for safety can find a safe anchorage in deep water, with plenty of room to move about in. Major W. H. H. Benyaurd, who has charge of the work, has advertised for two million feet of lumber, to be delivered in the early spring, and the amount will be cut in Michigan the ensuing winter.

SHIPBUILDING ON THE CLYDE.

The returns of the Clyde shipbuilding trade for 1883 show that the greatest activity characterized the industry during that year. The various firms on the river have surpassed all their previous efforts, the figures showing an amount of new shipping largely in excess of that of any previous year.

Subjoining will be found tabulated statements showing the number, description, tonnage and effective horse power of steam vessels, number of sailing vessels, etc., launched during the year on the river Clyde:

	Effective	Steam vessels.	Sailing vessels.	horse-power.	Gross tonnage.
Total number.....	251	88	315	110	417,881
Increase of tonnage on the year.....	...	...	...	...	22,732
Increase in horse-power of engines on the year.....	...	...	...	...	52,791

It will thus be seen that there were launched during the year by the various firms engaged in shipbuilding on the Clyde 339 vessels, of an aggregate tonnage of 417,881 tons.

The exact bearing of the returns will, however, be seen by reference to the following table, which gives the amount of tonnage launched during each of the last twenty-six years:

Year	Effective	Steam vessels.	Sailing vessels.	horse-power.	Gross tonnage.
1858.....	22,000	1871	...	...	196,000
1859.....	35,707	1872	...	...	230,340
1860.....	47,833	1873	...	...	232,926
1861.....	66,801	1874	...	...	262,430
1862.....	69,987	1875	...	...	211,800
1863.....	123,262	1876	...	...	174,824
1864.....	178,515	1877	...	...	169,710
1865.....	153,932	1878	...	...	215,640
1866.....	124,513	1879	...	...	173,820
1867.....	108,024	1880	...	...	242,774
1868.....	169,571	1881	...	...	340,823
1869.....	192,310	1882	...	...	395,149
1870.....	180,030	1883	...	...	417,881

The majority of the new vessels were built of iron, but a considerable number were constructed of steel, and every year furnishes evidence of the growing favor of steel as a shipbuilding material.

In 1879 the steel-built vessels amounted to 18,000 tons; in 1880 they aggregated 42,000 tons; in 1881 they rose to 66,000 tons; while in 1882 they reached 108,254 tons. During the last year these figures were surpassed, the steel-built vessels reaching a total of 129,651 tons.

It is estimated that the earnings of the 52,000 artisans engaged directly and indirectly during the year amounted to between £5,000,000 and £6,000,000, while the sum paid by ship owners to the builders for new vessels launched during the year can not be less than £10,000,000, or an increase over last year of at least £1,000,000.

It is to be noted, however, that notwithstanding the magnitude of the trade done during the year, the present outlook of the industry is not by any means bright. During the past season nearly all the shipbuilders have had to curtail their establishments, and it is estimated that since July no fewer than 5,000 men have been discharged. The tonnage under contract is far short of what it was at the close of 1882, and some firms show empty ships. The vessels on the stocks at present do not certainly number more than 100, of all classes, showing tonnage of about 200,000, or fully 80,000 less than was the case at this time last year. The largest contract has lately been executed by Messrs. John Elder & Co., for the Cunard line, who have ordered two extraordinary vessels, with a united tonnage of about 16,000 tons.

It is stated that contracts can now be made at from 20s to 30s per ton below the prices ruling two or three months ago, and even at that large reduction orders are not coming in.

The iron workers in nearly all the yards have accepted a reduction of 10 per cent. on their wages, and shipwrights, blacksmiths, engineers, ship-joiners and laborers have accepted a reduction of from 5 to 7 per cent.—Commercial Bulletin.

V. D. NICKERSON,

MARINE ARTIST
Rear of Central Tug Office, Main
St. Bridge, Cleveland, O.

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Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetyth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 1, Fast Limited Express.....	11 10 A M	12 05 A M
No 8, N. Y. B & A Express.....	11 35 A M	12 00 A M
No 26, Ellyria Accommodation.....	11 05 A M	12 00 A M
No 35, Buffalo A. C. M. via Sandusky.....	11 35 A M	12 00 A M
No 35, Toledo Accom via Norwalk.....	11 35 A M	12 00 A M
No 12, N. Y. & B. Fast Express.....	11 55 P M	12 25 P M
No 14, Special N. Y. & B. Express.....	9 40 P M	10 00 P M
No 2, Night Ex via Norwalk.....	11 42 P M	12 00 P M
No 26, Connect Accommodation.....	11 42 P M	12 00 P M

Westward.	Arrive	Depart.
No 1, Fast Limited Express.....	11 05 A M	12 05 A M
No 35, Mich Express via Sandusky.....	12 15 A M	12 35 A M
No 3, Chicago Express via ".....	12 05 A M	12 35 A M
No 25, Mich Accom Norwalk.....	11 10 A M	12 00 P M
No 21, Toledo Ex via Norwalk.....	11 55 P M	12 20 P M
No 5, St. Louis Ex via Sandusky.....	12 15 P M	12 40 P M
No 9, Chl Pac Ex via Norwalk.....	12 06 P M	12 30 P M
No 31, Ellyria Acc to Ellyria only.....	11 40 P M	12 30 P M
No 27, Connect Accommodation.....	11 10 A M	12 00 P M

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

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Following is the time in effect Oct. 6, 1884, and until further notice:

GOING EAST, LV.	AR	GOING WEST.
A. M.		P. M.
7 50	Chicago.....	7 50
9 45	Valparaiso.....	5 42
P. M.		
1 50	Fort Wayne.....	1 50
2 05	New Haven.....	1 35
A. M.		
3 56	Leipsic.....	11 30
4 49	Arcadia.....	10 34
P. M.		
6 50	Fostoria.....	10 22
7 35	Green Springs.....	9 44
8 15	Bellevue.....	9 10
10 49	Cleveland.....Lv.	6 45
P. M.		
12 05	Painesville.....	3 44
12 58	Ashtabula.....	2 51
1 42	Conneaut.....	2 20
2 41	Erie.....	1 23
A. M.		
4 19	Dunkirk.....	11 24
A. M.		
5 55	AR.....Buffalo.....Lv.	9 50

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination. For information, call on nearest agent of the Company, or address B. F. HORNER, Gen'l Passenger Agent.

LEWIS WILLIAMS,
General Manager, Cleveland, O.

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, June 8, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

No.	Depart.
No. 3, Columbus, Cincinnati & Ind. Ex.....	7:00 A M
No. 23, Gallon & Wheeling Express.....	6:40 A M
No. 9, Col. Cin. Ind. & St. Louis Ex.....	9:40 P M
No. 5, Col. Cin. Ind. & St. Louis Express.....	12:35 P M
No. 27, Gallon & C. & W. Acc.....	4:00 P M
No. 29, Massillon & Ulrichsville Ex.....	5:00 P M
Arrive.	
No. 8, Col. Cin. Ind. & St. Louis Exp.....	9:40 A M
No. 20, Uhrichsville & Massillon Ex.....	8:50 A M
No. 2, Col. Cin. & Indianapolis Express.....	9:50 P M
No. 14, St. Louis, Ind. Cin. & Col. Ex.....	9:45 P M
No. 22, Gallon Acc.....	10:00 P M
No. 25, Wheeling Accom.....	4:30 P M
No. 4, Col. Cin. & N. Y. Express.....	1:15 A M

Trains marked * daily, all other trains daily except Sunday.

E. B. THOMAS, General Manager.

O. B. SKINNER, Traffic Manager.

A. J. SMITH, General Passenger Agent.

CLEVELAND, OHIO.

New York, Pennsylvania & Ohio R. R.

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Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6:50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburg 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m. Oil City 12:50 p. m. Corry 12:35 p. m. Jamestown (Lake Chautauque) 1:35 p. m. Buffalo 5:50 p. m. Rochester 5:20 p. m. Hornellsville 6:00 p. m. [supper] Corning 7:25 p. m. Elmira 8:05 p. m. Binghamton 10:05 p. m. Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a. m.

2:20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m. Jamestown 8:47 p. m. Salamanca 9:45 p. m. New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Sleeping coach from Cleveland to Hornellsville. Arrive at Youngstown at 1:50 a. m. Meadville 3:25 a. m. Corry 4:59 a. m. Jamestown 5:37 a. m. Buffalo 9:20 a. m. Rochester 12:58 p. m. Hornellsville 11:00 a. m. Corning 12:07 p. m. Elmira 12:40 p. m. Binghamton 2:19 p. m. New York 9:10 p. m. Arrive at Pittsburgh 5:50 a. m. without change.

2:20 p. m. PITTSBURGH EXPRESS—Daily—Through without change. Parlor car attached. Arrives at Youngstown 5:00 p. m. Pittsburgh 8:02 p. m. Washington 7:09 a. m. Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACCOMMODATION—Stopping at all way stations, arriving at Youngstown 6:55 p. m. Sharon 8:01 p. m. Sharpsville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS—Daily—Through without change. Arrives at Youngstown 9:30 a. m. Sharon 10:30 a. m. Sharpsville 10:40 a. m. Pittsburgh 12:45 p. m. Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p. m.

10:35 a. m. YOUNGSTOWN AND PITTSBURGH ACCOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m. Pittsburgh 5:45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10:20 a. m., 1:05 p. m., and 9:45 p. m.

This is the only route by which passengers can reach Corry, Elmira, Binghamton, New York City and intermediate points without change. No change to Boston and New England Cities.

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A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.

J. M. FERRIS, Gen'l Maa'gr, Cleveland, O.

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The Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building.]

A. A. POMEROY, Editor and Proprietor.

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CLEVELAND, OHIO, THURSDAY, NOVEMBER 20

THE HUDSON BAY ROUTE.

Since the Erie canal was declared free of toll by the people New York State the Canadian government has made every effort to retain within her borders the great grain traffic of the lakes, which, in consequence of the action of the Erie managers, would, in all likelihood, be lost to her. Rates of toll have been reduced through the St. Lawrence system of canals, movements are on foot for the deepening of the Welland, and finally an expedition was organized for the purpose of demonstrating the feasibility of Hudson Bay as a navigable route for the grain trade of British North America. This theory was advocated by Englishmen early in the season, and was used as an argument in favor of the construction of the Hennepin canal by an American statesman in the halls of Congress, who, in order to make the question tenable, said that Hudson Bay was open and navigable the year round, and that a movement was then on foot at Winnipeg to place a line of grain carrying vessels on that route, thus making it possible to lay down the wheat product of Manitoba in Liverpool at less cost of transportation than the wheat product of this country could be placed there. We advanced the opinion, at the time this question was under discussion, in January, 1884, that the proposed route was not practicable on account of the short time that navigation would be open, about six weeks. The experience and discoveries of the expedition sent out by the Canadian government from Halifax, July 22d, are not flattering. The steamer Neptune, with the exploring expedition, reached Hudson Strait on the 8th of August. The strait is about forty-five miles wide, and at the opening a strong tide was found, running five knots per hour, but less strongly in the center than at the sides. The report says: "Half way through the straits, on the north side, is North Bluff Point, where the first ice was encountered, at one time it being quite thick. Ice was also found near Stupart's inlet, near Prince of Wales Sound. Churchill harbor is reported as a fine one in every respect, but there is no chance for a harbor at York Factory, at the mouth of the Hudson and Hayes rivers. At Nottingham Island, while proceeding through the ice, the Neptune had two blades of her propeller broken. Sunken rocks and shallow water were not infrequent, but several very fine harbors were found. The rise and fall of the tide was placed at about thirty-five feet. It is reported that starting from Cape Chudleigh, the variation of the compass was observed to be 49.30 west, and while continuing through the strait it increased until at Nottingham Island it was 52 west. While crossing to Marble Island, on the west side of the bay, it was

only 10 degrees. The ordinary marine compass was found to be of no service, but a patent compensation compass gave perfect satisfaction."

Ice, strong currents and foggy weather in the very height of the supposed open season are not very encouraging for profitable navigation of Hudson Bay, and a season that does not, during such a summer as has just closed, extend over six or eight weeks, will by no means support the grain traffic that would become necessary to carry out the plans of the English capitalists. In fact, the evidence, obtained by this expedition, which is sustained by the testimony of the Hudson Bay Company's vessels and whalers, will no doubt prompt the abandonment of the theory, and cause the Canadian government to continue the improvement of the St. Lawrence system of canals to a standard depth of eighteen or twenty feet, abolish tolls, and by systematic good management, accomplish at less expenditure of treasure and time that which it purposed to do over the so called Hudson Bay route, secure the major part of the grain traffic of the lakes.

LIGHTHOUSE ESTIMATES.

The annual report of the lighthouse board, which has just come to hand, contains a recommendation that the lighthouse district which now embraces all the upper lakes be divided, that portion embracing Lake Michigan and Green Bay be set off and designated as the seventeenth district; the remainder to be included in the present eleventh district and to be known by that name. Estimates for general appropriations for the fiscal year of 1884-5, including supplies, salaries, repairs, light vessels, fog signals, buoyage, and other expenses, are \$2,164,000, and the estimates for special appropriations \$1,261,550, made up in part, as regards the lake districts, of \$10,000 for Port Sanilac light station, Mich.; \$10,000 for Pipe Island light station, Mich.; \$15,000 for Milwaukee light station, Wis., and \$12,000 for St. Mary's river ranges, Mich. The recommendations make no provisions for lights at Point Pelee or the clay banks, Lake Erie, or in Lake St. Clair, at the mouth of the Detroit river. Permanent lighthouses should be placed at each of these points, and we trust that the board will direct their attention to the matter at an early day. It is true, there is a lightship at the place last named, but there are many reasons why it should be replaced by a permanent light, which are obvious to the general reader. There are several other points ripe for improvements, not included in the suggestions of the lighthouse board, among them the most imperative, perhaps, being the addition of a fog whistle on Charity Island, as an auxiliary to the light, which is a fixed white and said to be visible thirteen miles, but in a fog not of sufficient brilliancy to penetrate a distance necessary to serve as a warning to pilots in rounding the corner to the westward of the light, the course which the main channel takes, therefore being inadequate to warn vessels off the shoals, which extend from northwest to northeast. As we have said, a fog horn located on Charity Island would be an admirable addition to the light, to aid the enormous lumber carrying tonnage that passes this point annually.

THE British merchant marine is composed of some 21,500 vessels including 3,650 steamers, with an aggregate measurement of about 9,200,000 tons, while that of France consists of about 2,900 vessels including 700 steamers, with an aggregate measurement of 1,055,000 tons. The number of steam vessels of war, including transports, dispatch boats, etc., which are available for the protection of the respective merchant navies, are 337 vessels, with 2,058 guns, for that of England, and 317 vessels, with 1,680 guns, for that of France. It will thus be seen that, whereas the French merchant marine is protected in the ratio of one ship of war to nine merchantmen, no less than sixty merchantmen are allotted to the care of each British war vessel. In order to place the British merchant navy on an equal footing with that of France as regards man-of-war protection, it would be necessary to add 2,053 vessels to the Royal Navy. The merchant marine of the United States, as reported by the bureau of statistics, August, 1883, includes 26,137, to which official numbers have been assigned, and which are classified as follows: Sailing vessels 17,528,

steam vessels 5,825, unrigged vessels 2,784. The complement of armed vessels of the United States, steam and sail, is 228, carrying 1063 guns. This includes the armed code list and revenue marine list.

COMMANDER F. H. Bignell of Quebec, who went in charge of the expedition to explore the mysterious Lake Mistassini last July, has returned. He reports that after great difficulty they crossed into Ruperts Land, and at a distance of three hundred and sixty miles from Lake St. John they reached the southwest extremity of the great lake, supposed to be as large as Lake Superior. He reports that the waters swarm with fish and fur bearing animals and that the climate is agreeable. It is thought that the Hudson Bay Co. have had an agency there for upward of one hundred years, but have held it as a firm secret.

CANADIAN vessel owners are warned by the Marine Department against endangering life by sending their vessels out badly trimmed to encounter the stormy weather of the present month. The notice is due to officers having reported instances of criminal carelessness among vessels plying on Georgian Bay and Lake Superior.

D. D. CALVIN, JR.

To the Editor of the Marine Record.

The following lines, in memory of Dileo Dexter Calvin, Jr., who perished in the wreck of the steamer Hercules, while tugging up the Rapid du Plat, on the morning of the 9th of October, 1858, were written shortly after that calamity by G. Malone, father of Captain A. Malone, master of the steambarge D. D. Calvin, and have never been published. Captain D. D. Calvin, Jr., was a brother of Hiram Calvin, of the firm of Calvin & Son., Garden Island, Ont.:

L. W. B.

My spirit stirs, I feel the glowing flame
Within me rise, and can no longer hold
The thoughts which flow redundant to the brain,
And which, when egress find, must ease the soul.

I've seen a lovely morn—the radiant sky
Lit up in all its beauty and its pride;
But ere high noon I've seen the tempest fly,
And level trees and houses side by side.

I've seen a lovely flower bud forth, and ope
Its tender petals to the morning ray;
Anon, I've seen it hang its head and droop,
And fade and wither ere the close of day.

I've seen the yellow field of ripening grain
Rock, as in mimic of the ocean wave;
Soon prostrate lie from scathing wind and rain,
Nor all the farmer's skill or strength could save.

Such things as these around me come to pass;—
I've seen them painted on the poet's page;
And these are mournful types, but now, alas!
Their sad reality my thoughts engage.

I've seen the blooming youth, but lately sprung
From guileless boyhood to the manly form;
To whom the yearning of a father clung,
As ivy round the oak amid the storm.

I've watched and witnessed with extreme delight,
His rare deportment and his noble powers,
As day by day developed to the sight,
Like beauty to the opening summer flowers.

Before my painful eyes, around the while,
I see mementos of his skill and work;
His mild and tender look, his cheerful smile,
Conspired to set his many graces forth.

The eye that saw him passing to and fro,
Admired the man of business in the germ;
And felt elate to see in wisdom grow
The future partner of a thriving firm.

Unconscious of approaching harm, he leaves
The island, by his presence doubly blest;
And, bustling on the fated deck, he heaves,
Or pulls, or cheers, and mixes with the rest.

But, Oh! the rueful morn at length arrives,
He stands, and views the boat with seeming pride,
As bravely 'gainst the flowing stream she strives,
And mounts majestic through the current tide.

Meanwhile, ashore is heard a crash,—ensues
The breathless awe!—they stare with one accord;
While quivering lips announce the doleful news—
"The Hercules blown up, with all on board!"

Oh frowning Providence! behind thy cloud
Does mercy wait to heal the aching heart;
Or have our sins for vengeance cried aloud,
And moved Thee to direct the pointed dart?

Mysterious Ruler of this changeable world!
O send Thy Holy Comfort from above;
And soothe the souls from whose embrace were
hurl'd

The dearest ties and objects of their love.

While with affection's tear, we mourn below
For him, thus plunged beneath the ruthless wave,
Yet mourn we not for him as those who know
No other balm,—no hope beyond the grave.

We have a hope, well grounded on the Word
Of God, whose witness he but lately stood;
That, as he owned his Savior, dying Lord,
With Him he reigns among the happy crowd.

Oh may our often cautioned souls beware,
And bow submissive to this afflictive rod;
May all around the solemn lesson hear,
Which cries to each, "Prepare to meet thy God!"

—G. M.

LOW PRESSURE VS. COMPOUND.

CLEVELAND, November 18.

Editor of the Marine Record:

My letter, published in your issue of October 30th, has called forth an answer from Compound, published in your issue of November 13th. Compound does not give the name of the boat to which he refers, and does not tell the amount of work done, as I did. "The proof of the pudding is in the eating." I have yet to hear of the engine on the lakes that equals or excels those of the Jarvis Lord and Fairbanks in economy of fuel, considering the work done, showing plainly that a rightly proportioned low-pressure engine and boiler are not easily beaten. I can name such boats as the E. B. Hale, Colonial, and others, while low-pressure, are not noted for their economy of fuel.

Compound further states that he does not think that any one to-day would question the economy of the low-pressure over that of the high-pressure. I know of a case where a well posted man differs on that question. He has had four years' experience with a double low-pressure, made by a Cleveland firm, previous to which he had several years' experience with the high-pressure, and he prefers the latter. I perfectly well understand the rules and regulations to be taken into consideration when constructing a boiler, relative to the strength, whether for high or low pressure, high-pressure boilers being better adapted to compound engines. I am still of the opinion that low pressure boilers are safer than the high. Why have all of our popular steamboat companies been particular to advertise certain passenger steamers as low-pressure when they could if it were not to represent it safer to the public. The way to decide the matter is in practical demonstration, and not in theory. When any one can make a better showing than the Lord and Fairbanks in fuel, it must be indeed getting things very fine.

LOW PRESSURE.

The schooner Lucinda Van Valkenburg arrived at Milwaukee, coal laden, having been thirty-six days out from Buffalo, and was at one time reported lost with all hands.

[Continued from 1st Page]

KINGSTON.

The Government steamer Newfield has been put up for repairs. She will be supplied with a new boiler and the hull and engine will be overhauled. The Department of Marine is exercising every precaution to prevent disasters on the lakes, common at this season of the year. The Government Inspectors are carefully watching vessels and seeing that no infringement of the law is committed.

The schooner Oliver Mitchell, with corn for Ogdensburg, is ashore near Clayton. The tug McArthur has returned after releasing the schooner Lydon, which was ashore at Weller's Bay.

The schooner Annie Foster, Captain Kennedy, arrived here Sunday in tow of the steamer Hasting's and is now lying at Gunn's wharf. She was so badly damaged that a steam pump had to be kept in operation on the trip down. Captain Donnelly had little trouble in raising her.

HORN'S PIER.

The tug Jessie Spalding and barge Burroughs succeeded Monday afternoon in releasing the schooner Itasca, which went ashore at Bailey's Harbor, Saturday. She is not damaged any.

CHEBOYGAN.

The schooner Thomas P. Sheldon stranded night before last at Middle Island. She was in tow of the tug Gladiator, bound up, when the line parted and she went on the reef. She is leaking badly. The tug Swain will probably go to her assistance.

The tug A. J. Smith went to the schooner Blissell, ashore at Marquette, this morning. She is insured.

The schooner Wells, in tow of the steambarge Keystone, stranded on Whiskey Island early yesterday morning. The Keystone grounded at the same time, but got off by throwing off considerable of her cargo, but is all right and now here.

ST. IGNACE.

The propeller India, aground at Mud lake, was lightered off by the tug E. M. Peck. Boats from Lake Superior report rough weather on that lake.

DETROIT.

Special to the Marine Record.

November 18th—The schooner Ganges is at this port, undergoing partial reconstruction at Oade's shipyard. She was built by Oades ten years since, and is 330 tons burden.

Large quantities of supplies for the various lumber regions are at present being shipped from here, and hardly a day passes that vessels are not seen being thus freighted.

Murphy Brothers' steamer International has recovered the outfit of the schooner Lady Dufferin, stranded at Cariboo Island, and the vessel will remain there until next season.

Fogs and smoke, the present fall, have proven a greater detriment to the shipping than ever before recorded. Last Thursday night was the densest of the season, compelling all manner of craft to lie too during the entire night, even the railway ferry steamers, which claim they can cross the river at all times and under all circumstances.

The schooner E. G. Benedict was sold on Saturday by the United States marshal at this port, and brought \$1,305, J. M. Jones, of this city, being the purchaser. The claim against the vessel was some \$400 above that amount. She was built at Mill Point, Lake Ontario, in 1869, and registers 154 tons.

The steamers running to Lake Superior, and now on their last trip, leave with full cargoes, chiefly merchandise and supplies, though but few passengers. The India, of the Lake Superior Transit, was the last boat of that line for Duluth. The St. Paul took her departure to-day (Monday) and the Arctic, now here, will probably complete her cargo to-night, and leave before morning, going no farther than Hancock.

At an early hour on Thursday morning the barge Plymouth Rock, owned by J. & F. Hurley, of this city, took fire and was badly damaged. She will be hardly worth rebuilding. She was formerly a fore-and-aft schooner of 226 tons, and was built at Oswego in 1852.

The captain of the schooner Starling arrived here on Thursday evening and reported his vessel stranded near Manitoulin island, Georgian Bay, laden with cedar posts, and in bad shape. She hails from Port Rowan, was built at Robbin's Mills, Lake Ontario, in 1873, and registers 248 tons. The tug Winslow was dispatched to her relief Friday forenoon.

Foundering has been less frequent thus far the present fall than for many years past, and shipwrecks have fallen far below the usual ratio. A rough estimate on the losses on hull and cargo has been placed at \$600,000. The figures are not my own, but as the annual statement will not long be deferred, those interested can afford to wait and see what they will see.

The recent gales have seriously retarded the movements of vessels on all the lakes, and especially on Lake Erie. Several vessels were from ten to twelve days on the passage from Buffalo to this point.

The weather yesterday, by telegram from the Sault, was reported quite cold and ice forming rapidly.

The tug Phoenix, consumed by fire at Texas landing, was first commanded by Captain B. G. Sweet. Her present owners are Parker & Millen, of this city, who valued her at \$12,000. She was insured for \$10,000, and was 173 tons burden.

Murphy Brothers received a dispatch last evening announcing the release of the schooner Gerrett Smith by the tug A. J. Smith, at Crawford's Quarry. The news was a surprise to many, as she had been reported stripped and abandoned. The intelligence will be welcomed by her owner, Captain Pat Meyers, of Chicago.

The barge Alvina, while in tow of the steambarge Alleghany yesterday, came in collision with the schooner F. W. Wheeler, which lay moored at a dock below Windsor. The steamer was rounding too with her tow at the time, and, probably for the want of good steering, she took a sheer, and the collision ensued. The damages to each will be about \$200.

Advices received by the last boat from the Sault river report the propeller India, which left here a few days since laden with merchandise and supplies for Duluth, stranded in Mud Lake. A tug and barge had arrived from Sault Ste Marie and the work of lightering a portion of the cargo begun.

A telegram from Alpena last evening, to Murphy Brothers, of this city, reports the schooner Thomas P. Sheldon, laden with coal for Milwaukee, stranded on Middle Island, Lake Huron. At the time she was seeking shelter from the gale Sunday night and heading for Alpena. The condition and prospects for release are not stated. The tug Gladiator is at Alpena, and, as soon as the weather will permit, an effort will be made to get her off.

The schooner Unadilla, which arrived here yesterday from Escanaba, reports rough usage during the northeast gale on Lake Huron, Sunday.

Among the craft at present in port is the barge Mary Stockton, discharging cordwood. She is a veteran of the waters, having been afloat for 32 years, and in her early days was one of the finest modeled barkentines on the lakes. She was built at Sheboygan, on Lake Michigan, 233 tons burden and at present hails from Vicksburg, on the river St. Clair.

The schooner A. C. Maxwell, which stranded at Fighting Island, Sunday, was released yesterday, and proceeded on her voyage.

The weather was quite sharp yesterday evening and ice formed on the borders of the rivers and lake Huron.

Captain George McClure, of Detroit, commander of the schooner Frank Morris, navigated his craft into port at Port Huron alone, his crew, William Clark and John Clifford, having been knocked overboard by a foreboom off Forester, on Lake Huron, Monday, at 5 o'clock, during a terrible gale. McClure was very much exhausted from exposure and work in saving his vessel.

The managers of the Star Line of steamers have come to the conclusion to cut the steamer Idlewild in two and lengthen her twenty feet. The steamer will then be 192 feet long.

It is said the tug J. W. Bennett has been seized at Port Huron on claim of several persons, which amount to over \$5,000.

J. W. H.

W. J. Partridge, of Detroit, is constructing a \$1,200 sail yacht of the following dimensions: Keel, 34 feet; length over all, 40 feet; beam, 15 feet; depth 4 feet. The yacht will be completed in the spring.

It is said the Western Transportation Company has decided upon having two more steel steamships of the same build and dimensions as the Albany and Syracuse, and will order their construction during the coming winter. The Detroit drydock company will build the new vessels. The Syracuse and Albany have speed, beauty of outline and proportions, and large capacities for carrying freight, and are provided with large fore and aft canvas, which can be turned to account in the event of their machinery breaking down. In every respect they are nice vessels, and resemble, except in point of size, the large ocean steamships. Their cost was about \$200,000 apiece. The new boats will cost about as much.

DULUTH.

Special to the Marine Record.

The Kincardine came off the boxes Saturday and cleared for Beaver Bay to load timber for the Canadian Pacific.

The tug Danforth, which has been at Grand Marais all summer, arrived Friday night with Williams & Upham's dredge in tow, the government work at that place being completed. The dredge will be put to work on the harbor dredging here.

The propeller Henry Chisholm, Captain Geo. Stone, made her first appearance at this port last week, and according to all accounts made the quickest round trip on record, arriving at Buffalo on Tuesday night, ten days out, with a cargo of grain.

The shipments of wheat last Friday were 231,000 bushels, the largest one day's shipment ever made from this port.

MARQUETTE.

Sunday night the schooner Harvey Bissell, bound up, light, attempted to make this port during a heavy northwest gale. She let go her anchors just inside the breakwater, but they became foul and she drifted on the beach and now lies hard on. A tug has been telegraphed for, and it is expected that she will be released without much difficulty.

The steamer Business and Worthington, which cleared on Monday, are the last of the season, the ore shipments having closed.

BUFFALO.

The seamen's union were on the point of raising wages to \$4 last week, but as fully one-half the vessels arriving here are laying up, they concluded to let them remain as they are. The Western Transit will send out their last steamer from here about the 25th instant, and will then lay up about half of the vessels here and the rest in Chicago. Their package freight business continues good.

The case of R. C. Gunning, of Crosby & Gunning, charged with illegal voting, has been adjourned to December 2d. The commissioner was about to discharge him, deeming the evidence insufficient, but the prosecution asked for adjournment, which was given in order to submit the register of the Tift House in evidence.

Some quick work is reported by the Union Steamboat Line. The propeller Avon, of that line, broke her rudder off Beaver Island, Lake Michigan, at midnight of Thursday last. She was rescued by the Mercur and taken into calm water, and towed into Mackinaw City by the Jewett. News of the accident reached Buffalo on Friday night. On Tuesday night a new rudder reached her from Buffalo, by the Dean Richmond, and at 4 a. m. Wednesday the Avon had adjusted her rudder, and left Mackinaw City for Buffalo.

Repairs to the amount of \$275 have been completed on the schooner Golden Fleece.

The steamer M. M. Drake, Captain John Greer, will receive a new deck at this port during the winter.

It is thought that the Siberia and George T. Hope will be laid up at Bay City, where Captain Davidson intends doing some work on them. The Siberia is to get lower deck bilge braces and a monkey rail, so as to give her eighteen inches more side. The Hope will also receive a new main deck in place of one twisted out of shape by hot corn early this season.

The Western Transit and Union Lines will each send up three or four more boats. The Anchor Line will probably send back from this port only one more, though one or two may be started up from Erie.

The Richmond elevator, one of the largest at this port, Monday closed down for the season, and one or two others will probably follow this week.

Freights are very dull at 75c to Chicago and Milwaukee.

Captain George McLeod left Tuesday for the schooner T. P. Sheldon, ashore on Middle Island Reef, Lake Huron. The tug Gladiator was there with steam pump and hawsers. The Sheldon is insured for \$17,500 in the pool companies.

It is the ambition of the Lake Superior Transit Co. to have in their new steel steamer under construction by the Union Drydock Co. the most speedy and elegant boat on the lakes. It is thought that she will be ready for launch about the first of December. She will be 301 feet 6 inches long, and 38 feet beam, and of about 3,000 tons. The Jewett is now called the "race-horse," but as the new steamer has better lines, the same power engines, and 25 per cent more boiler power. She is expected to be still faster and to make fifteen miles an hour. Her cabin will be 4½ feet wider than that of the Nyack, and will be finished in cherry. The hurricane deck will be fitted up as a promenade deck, with the smoking room forward of the mainmast, and she will accommodate 200 passengers. Everything will be fitted up in the best style possible, and she will be made the finest boat on the lakes. She will carry three spars, which will rake slightly and her smokestacks are to be put nearer amidship than is usual on lake craft, and will also rake so that she will look much like a ocean steamer. Passenger Agent Carpenter intends to have her started in the spring, and have her run to Mackinaw and Port Arthur. A change will thus be made in the running of the line, and two boats weekly will run to Port Arthur, the others going to Duluth.

On Tuesday night, while being towed up from Tonawanda, the barge Levi Rawson, light, fetched up on Horseshoe Reef and went out about a foot. The tug J. H. De Graff, which had her in tow, could not pull her off and she remained all night. She was released the next morning by the tugs Williams, Dorr, Alpha and Moore.

AMHERSTBURG.

The schooner A. C. Maxwell, laden with grain, from Detroit to Oswego, in tow of the tug Shaughraun, ran aground on Fighting Island during the dense fog Saturday night. She is eighteen inches out. The tug International, with lighter and the Shaughraun, with lighter, are at work on her. The fog was very thick and everything was brought to a standstill.

The tug Phoenix, formerly the I. U. Masters, owned by Parker & Miller of Detroit, was burned to the waters edge Monday morning shortly after 7 o'clock while lying at the wharf at Texas landing just below the Limekilns. The fire originated in the starboard bunker while the crew were at breakfast, and the flames spread so rapidly that in five minutes the whole upper works of the tug were in fire. The crew were unable to get at the hose and commenced dashing water into the hold with buckets. The propeller Marsh, which was lying at a wharf just below the Phoenix, brought her hose to play on the burning tug, but to no purpose, and in a few minutes the tug was a complete mass of flames. The dock at which she was laying caught fire, and the owners ordered the tug to be towed away to save it. The tug Shaughraun attached a line to the bow of the Phoenix and run her on the beach a short distance above the wharf, where she now lies, a total loss. The crew state that the fire was so sudden that they were unable to get their dunnage out, and that a steam pump and two 250 foot hawsers were lost. There was over ten tons of fuel on board the tug at the time, which, when it got rightly on fire, warped the machinery so that it will be entirely useless. The Phoenix was valued at \$12,000 and was insured for \$10,000 in the pool. The owners had stationed her at Texas Landing to assist vessels over the Limekilns during times of low water. The Phoenix, of 20 tons, was built at Cleveland by Peck & Masters in 1862 and classed B1½.

ALPENA.

The schooner Thomas P. Sheldon went ashore on Middle Island Reef, Monday morning at 3 o'clock, during a snow squall. She is loaded with coal and bound for Milwaukee from Cleveland. She is full of water. Her captain says if the wind holds in its present position her chances are good for getting off.

Further advices from the schooner Thomas P. Sheldon reports her in good condition. The Captain of the tug Gladiator says she will experience but little trouble in reaching here if no bad weather sets in. She is in 18 feet of water, and is making water. The Gladiator will await the tug Moore with a pump, and then go to work. The wind has gone down. The Sheldon is valued at \$19,000, rates A2½. She was built at East Saginaw by Crosthwaite in 1871, measures 669 tons and received extensive repairs this spring at this port under the direction of Clark J. Butts, her owner. The Sheldon is insured in the pool companies for \$17,500.

OSWEGO.

One of the Donnelly scows which got adrift Monday, went on the beach and was there this morning. The scow was too close in shore after the line parted for the tug to reach it and the life saving crew went down and took a line from the scow to the tug and got her off.

Saturday night the cabin of the steamer Thompson took fire and considerable damage was done before it was extinguished.

CROSS VILLAGE.

The small steamer M. W. Wright is ashore in the Straits. She was bound from Beaver Island for Charlevoix with a cargo of fish. She encountered a severe gale and was blown on the beach near Cross Village, where she is rapidly going to pieces, and will prove a total loss. Her crew and passengers were saved. The boat measured only thirty tons and was engaged in the excursion business at Charlevoix all summer. She is valued at \$3,000 and is owned by Captain Chamberlain. She was built at Grand Haven by Elliott in 1873 and hails from Charlevoix.

ESCANABA.

The amount of ore shipped from Escanaba this season up to November 13 is 1,340,321 tons.

The P. S. Marsh was the only arrival on the 15th. She departed on the same day.

NAVAL SHIPS.

LOCKPORT, N. Y., November 17.
Editor of the Marine Record.

The great marine question now, before the world is navy, such an one as will meet modern war engines of destruction, and protect our commerce and cripple that of our enemies. None such has yet been constructed. England's iron-clads are nothing more than floating forts, and bad ones at that, as was proved at Alexandria the second day of the bombardment, and could not use their guns on account of excessive rolling, on that day. In fact they can not use their guns in rough water. England's most scientific men now concede that the iron-clads are not what is now needed for a navy. The reasons that they assign are that with such unwieldy, top-heavy concerns they could do nothing in protecting their commerce. It is strange that when one idea gets a start, even when proved wrong, to what great lengths it will run before it becomes obsolete. The fate of England's great war ship Captain was ample proof that top-heavy vessels could not use their guns in rough times. Sir William Armstrong says: "The conspicuous deficiency of the British navy is in fast cruisers." We have borrowed the idea, and now have one, the Dolphin, but of what use would she be in a rough time? She has in her form the extreme of top-heavy. I have not seen the Dolphin, but if the illustration that I now have is like her, she will be of no value as a war vessel. In rough times she will be a rolling, tumbling, useless ship. I have said in some of my former letters that vessels as now formed for ocean use were from judgment and fancy. This ship has in her form largely fancy, and but little good judgment, and no science to meet the motions and forces of the ocean. She may answer well for interchange of national courtesies in time of peace, but it would not be possible for her to pursue, overtake and capture one of those fast English steamers. Such are to be the future commerce of the world. No more sailing trading ships; the laying of the Atlantic cable and railroads was their death warrant. Naval ships for the future must be superior to all others, both in speed and endurance. This is a progressive age, and rapid ocean transit is now called for and it will not move backward, and great as the speed now is, no doubt it will be greater. Sir William Armstrong is right. Cruisers are what will be needed for a navy. The iron-clads of these times may answer for a while to knock down old time forts, like those of Alexandria, but the forts of the future will be different things. China is now learning a lesson, and no doubt will profit by it, and build fortifications that no navy can knock down. And we should profit also, and now in time of peace prepare so as to protect our sea ports with solid iron forts with revolving turrets. Mr. Kemby, of Syracuse, N. Y., patented such a fort several years before the war, and had it invulnerable. He lived only twelve miles from my residence, and at the same time that he was working out his fort I was at work on my navy ship and turret. In the way that he had his fort all of the ships that were ever built could not have knocked it down, and to have taken it by storm would have been impossible. Such will be the future fortifications. Our great city of New York has now no other protection than it can get from torpedoes. Its forts with its now guns are of no value against the heavy armored iron-clads. There should be at least ten iron forts with guns the heaviest possible to be used and such as can penetrate any armour possible to be used on a ship. These inventions of Mr. Kemby and mine have revolutionized not only national land defences, but naval warfare. We are both native citizens of the United States, and if he is now alive he is an old man. I have not seen or heard of him for fifteen years. The last I knew of him he was poor, eking an existence the best way he could with some small inventions that he had patented. No one has ever claimed the turret, and we can both prove, in the closest manner, that we are the inventors; also that the government knew it. But they have built no forts on his plan and no ships on mine, but they have caused the turret to be put on that manstrosity, the Monitor, that was not ever worthy of the name of vessel, and sunk the first time she met a light gale, and by doing so have transferred all the honors to a foreigner who makes no claim to it. I did not patent my ship, did not dream of it, nor the turret, one of its multitude of details, but I gave the whole plan to the government. I wrote two letters precisely alike, one to Mr. Lincoln and one to Mr. Wells, Secretary of the Navy, and received a reply from Mr. Wells. See the copy of the one to Mr. Lincoln:

CICERO, May 18, 1861.
Abraham Lincoln, President of the United States:

SIR:—I have been for many years experimenting and investigating upon the principles of naval architecture and have matured a system, based upon science, which will produce a vessel capable of withstanding all ocean forces, and far superior to any heretofore constructed for speed. In the course of my investigations I hit upon a plan for the construction of a gun boat, or vessel of war, for coast guard use, which I have, from the dictates of humanity, kept a profound secret, but, in the present condition of our country, I believe it to be my duty to tender the plan to our government, for the purpose of assisting or quelling rebellion. I will briefly state that which I purpose to accomplish, and if you think it worthy of notice I will furnish plans and place them in the hands of any competent person who may be delegated by the government to receive them, without conditions: First, the vessel will be invulnerable and perfectly shot-proof. Second, she can not be captured by any vessel now in use, and it is next to impossible to capture her with a vessel of the same kind and superior power. Third, she will be capable of destroying any vessel now in use, no matter what her armament may be, instantly, and no vessel of the present construction can escape from her. With competent pilots she can enter any harbor and destroy all of the shipping at her leisure, and retire with impunity when her work has been accomplished. Fourth, as a transport she will be invaluable, as she can pass all shore batteries with safety, and will afford a cover while disembarking her troops. In fact, if the government was at this time in possession of a few of these vessels, the whole south could be reduced to submission in a short time. For instance, it six or eight of these vessels could be placed in Charleston harbor, or any other, the city could be battered down in a short time. The above may appear to you as the idle dreaming of a visionary, but, believe me when I say that my convictions are strong that the design will be a success. Also, I fear that the enemy may hit upon some such device to relieve themselves from blockade of their ports, and it is my firm belief that if they did possess a class of vessels similar to the one above spoken of, that our government would not be able to blockade their ports. Be assured, also, that no mercenary motives could ever induce me to reveal the secret of the construction of so dangerous an engine of war. Nothing short of the promptings of my duty to my country, and of the urgent necessity for the speedy suppression of the rebellion and this unnatural war, and I would suffer anything that human nature could endure before the enemy should possess the knowledge.

Yours truly,
JOSEPH W. NORCROSS.

I received an answer from Mr. Wells. See copy below:

NAVY DEPARTMENT, JUNE 17, 1861.
SIR:—Your letter of the 1st instant, in relation to your system of constructing vessels of war, has been received. No reliable opinion can be formed of the merits of your system without a description, with a plan or a model. I am, respectfully,
Your obedient servant,
GIDEON WELLS.

This I immediately answered, and sent a plan and drawings which Mr. Wells reported to the extra session of Congress in 1861, and they passed a bill authorizing him to build from it, but it was not done. But they took the turret from the plan and put it on the Monitor, and have put it on several other vessels since, all of which are of no value. The turret on the Monitor proved its value, and could it have been on a vessel that had any speed, and one that could have safely borne it at sea, the war would soon have been ended. As yet we have no such vessel, nor is there one in the world. The turrets, as they have them on the sides of the Dolphin, in a rough time must add to her rolling. The ship that was designed for it, the turret, never rolls, and could, in a gale, use her guns, and with ease knock the light, thin bottoms of the best of England's iron-clads out of them when they rolled up, and could not use their guns. We must now have cruisers that can use their guns at all times, and we can have them. Also, we must have forts that can not be knocked down, as stone and mortar can be. We have no navy, nor have we seaboard defences that can be relied upon. Light is needed on this subject. If you will publish it, I will contribute my might.

Yours truly,
JOSEPH W. NORCROSS.

No date has been fixed for the closing of the canal, but it will doubtless be some day early in December. "Let me tell you something," said a well-known riverman. "I prophesy that it will close about December 3d. If it goes by that date a few days, then it will not close until January. For nearly forty years I have studied this thing, and I have observed that the river almost always closes with the full of the moon. Seldom does it fail. The December full moon will appear about the 3d, and you keep your eye open and see how far out of the way I am."—*Albany Journal*.

Subscribe for the MARINE RECORD.

NOTICE TO MARINERS.

The following has been issued by N. M. Dyer, commissioner U. S. N., and inspector for the tenth lighthouse district, with headquarters at Buffalo:

Notice is hereby given that the removal for the winter of the buoys in that portion of the tenth lighthouse district, embraced by Lake Erie and Detroit river, will begin about the 15th instant, and probably be completed by December 1st. Small scantling buoys will be left to mark the more important stations, as usual, in place of the buoys removed. The buoys in Niagara river and the harbor of Buffalo will be left in position as long as possible, and on their removal no small buoys will be left in these localities.

Another body, supposed to be that of one of the crew of the lost schooner New Dominion, was washed ashore near Port Maitland and was buried on the beach. It was not identified. Should it be found that it belonged to the ill-fated vessel it would prove that the crew abandoned her and tried to make Port Maitland at the head of Grand River in the vessel's yawl, and that the boat was swamped in rounding the pier. The occupants must have been weakened by exposure to the elements, and become unable to cope with the heavy sea, or to manage the boat as skillfully as necessary. The vessel's papers and the captain's letters and papers were found in a desk which came ashore, badly broken. The bodies of neither Captain Daly nor Griffith have yet been found. It is reported that Adam Nealey, of Port Stanley, was one of the crew lost off the schooner New Dominion.



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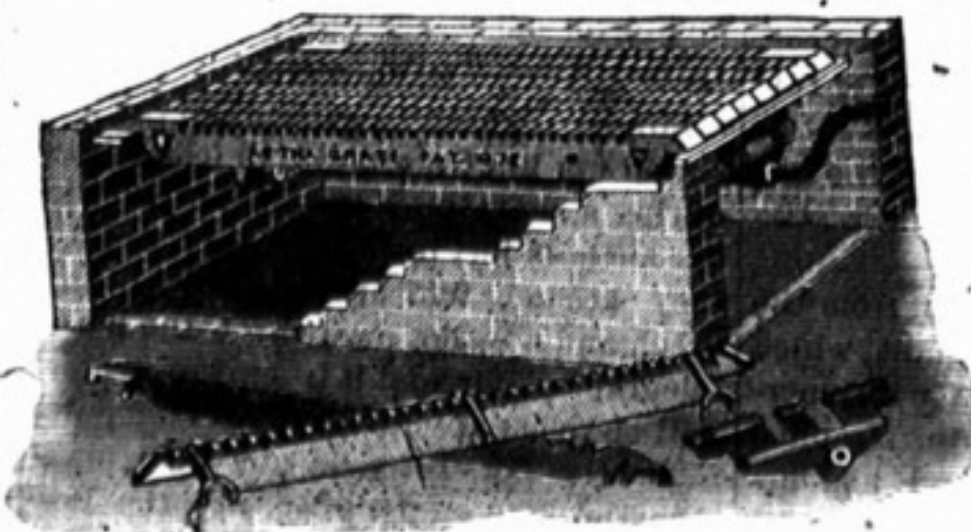
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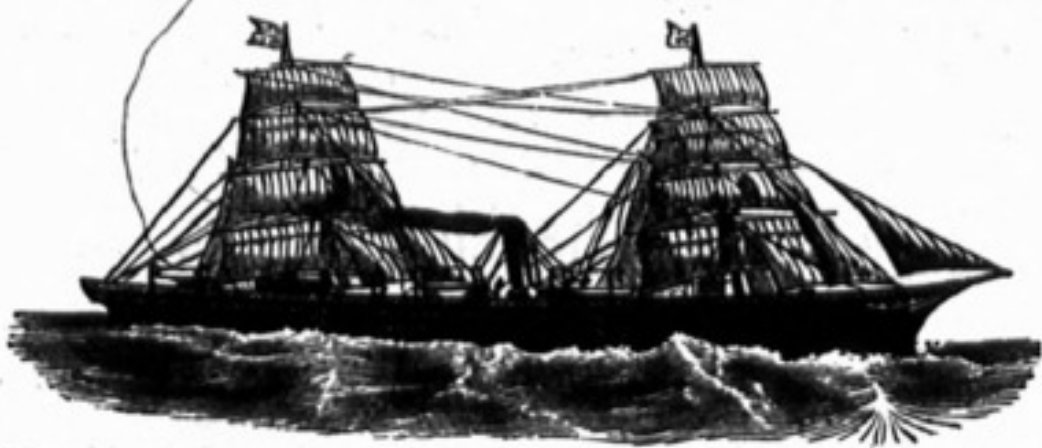
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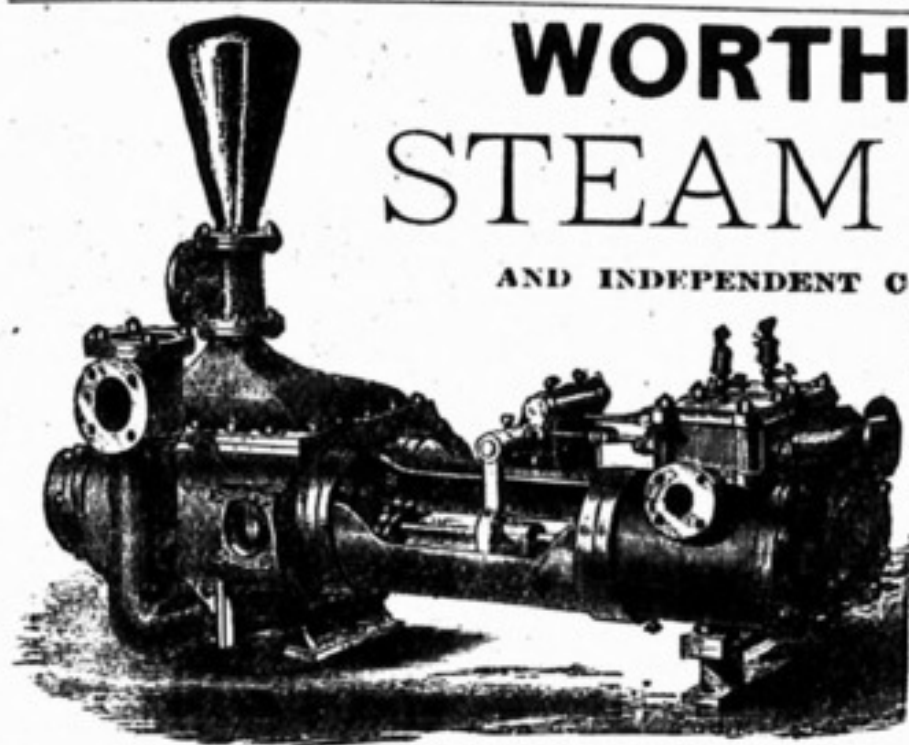
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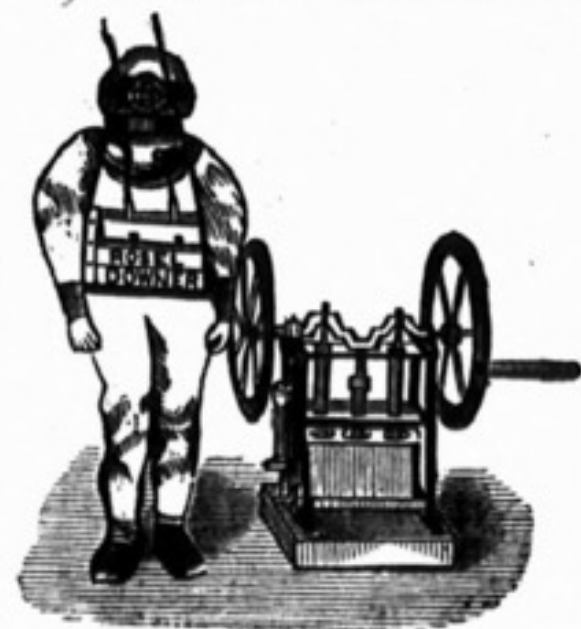
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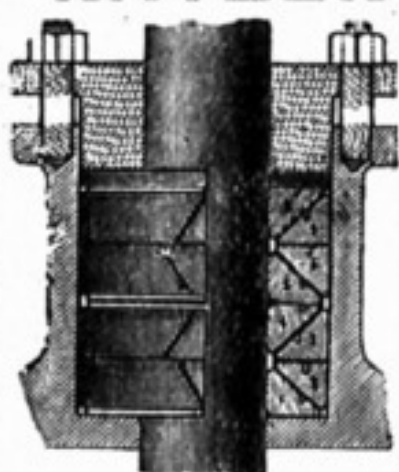
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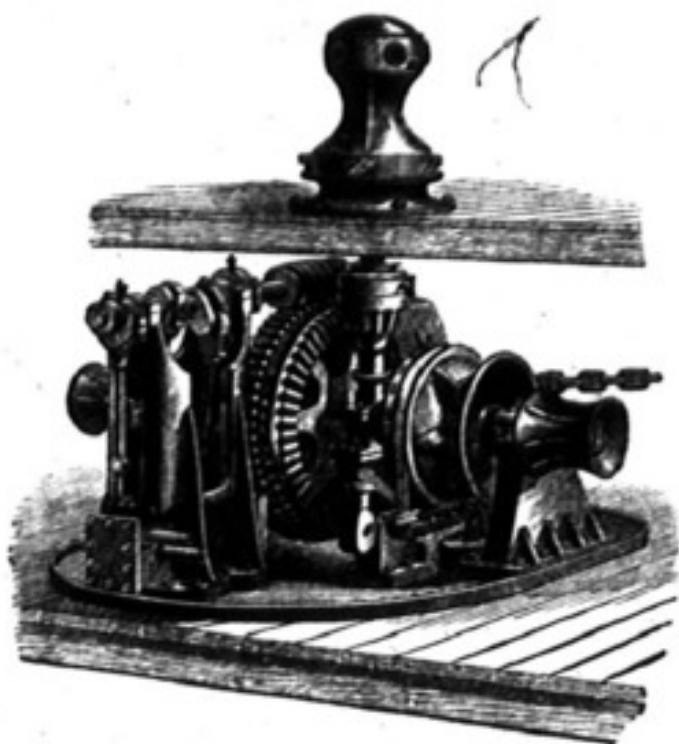
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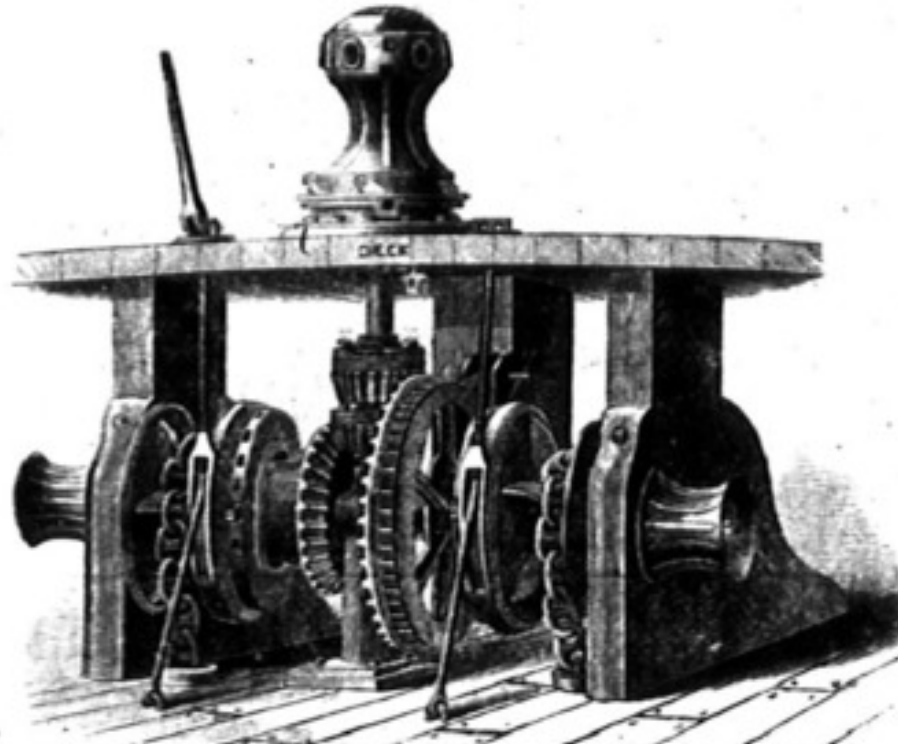
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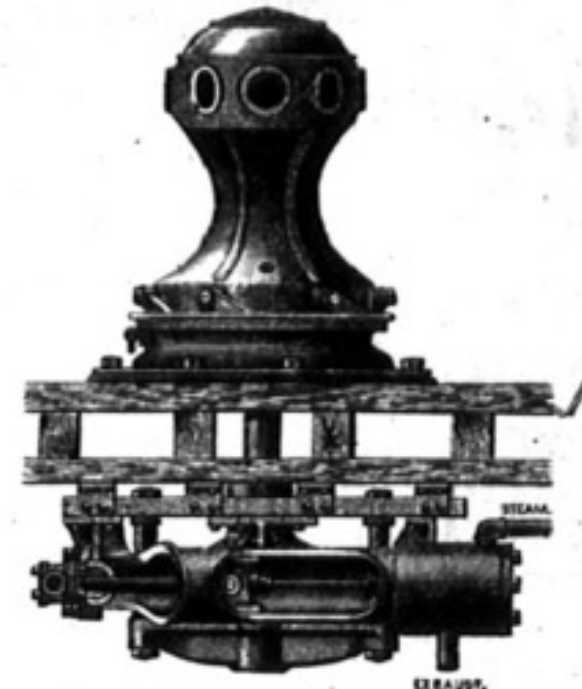
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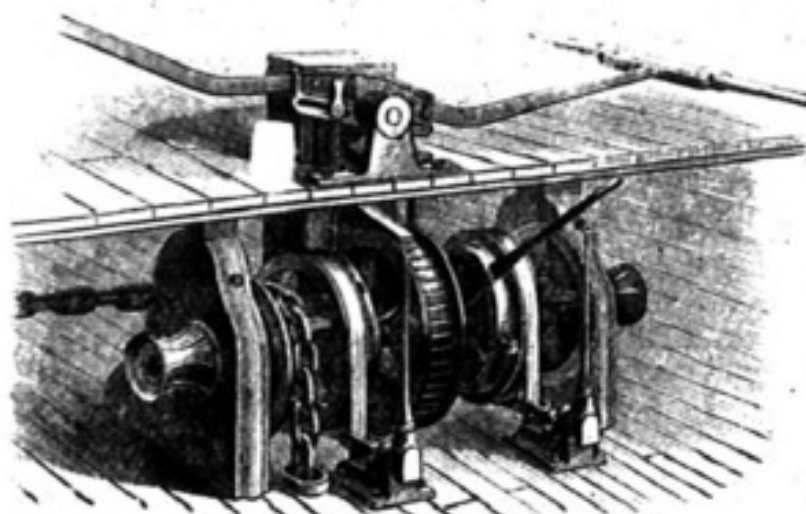
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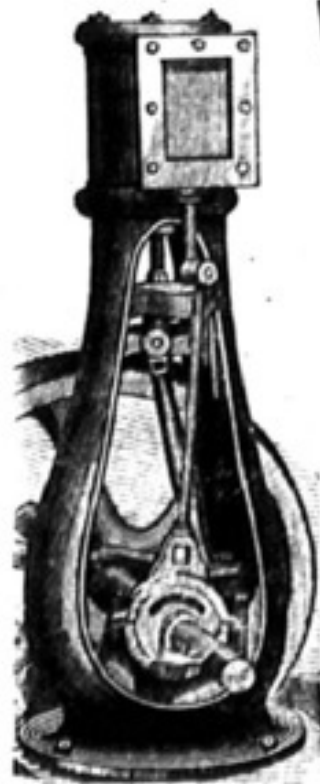
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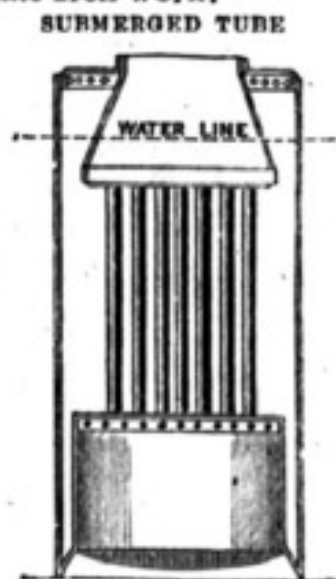
STATIONARY ENGINE



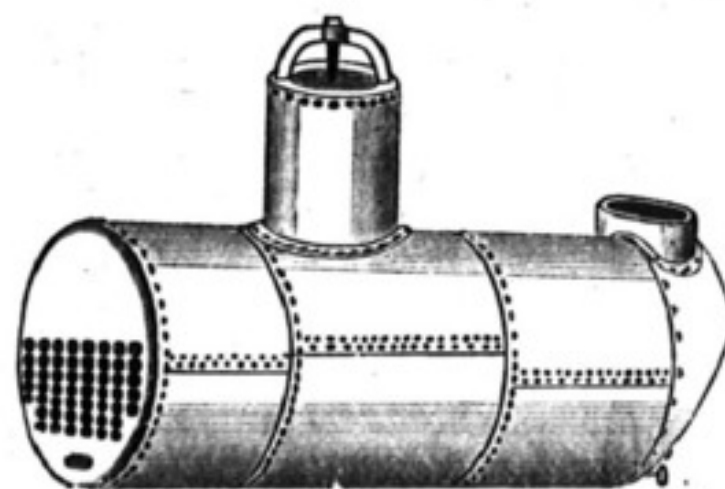
MARINE ENGINE

BOILERS.

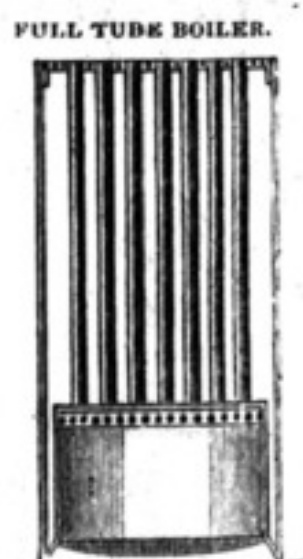
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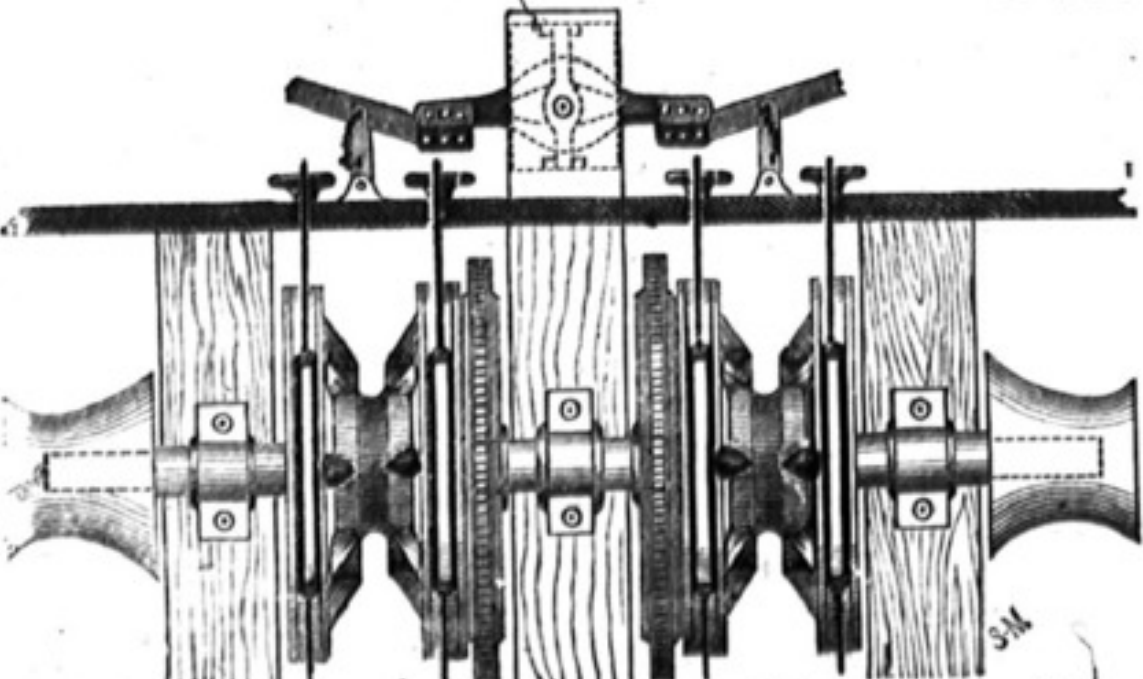


TUBULAR BOILER.

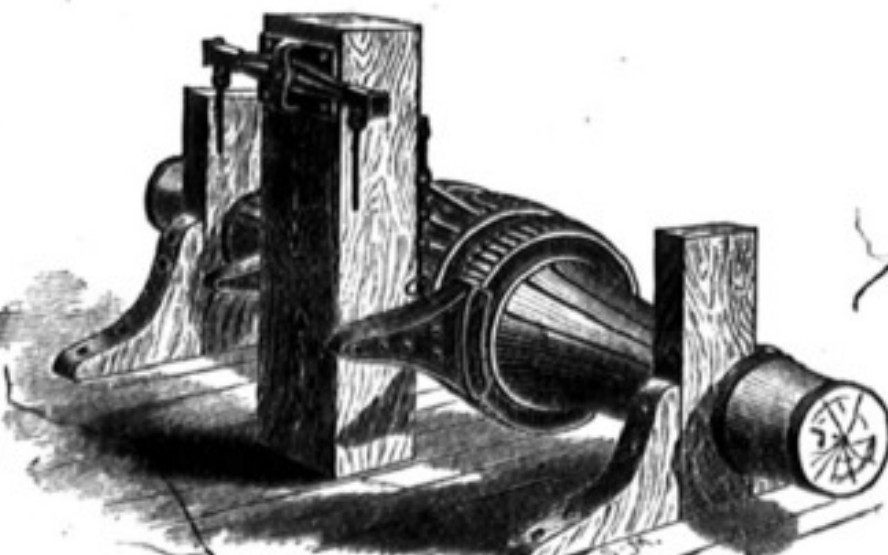


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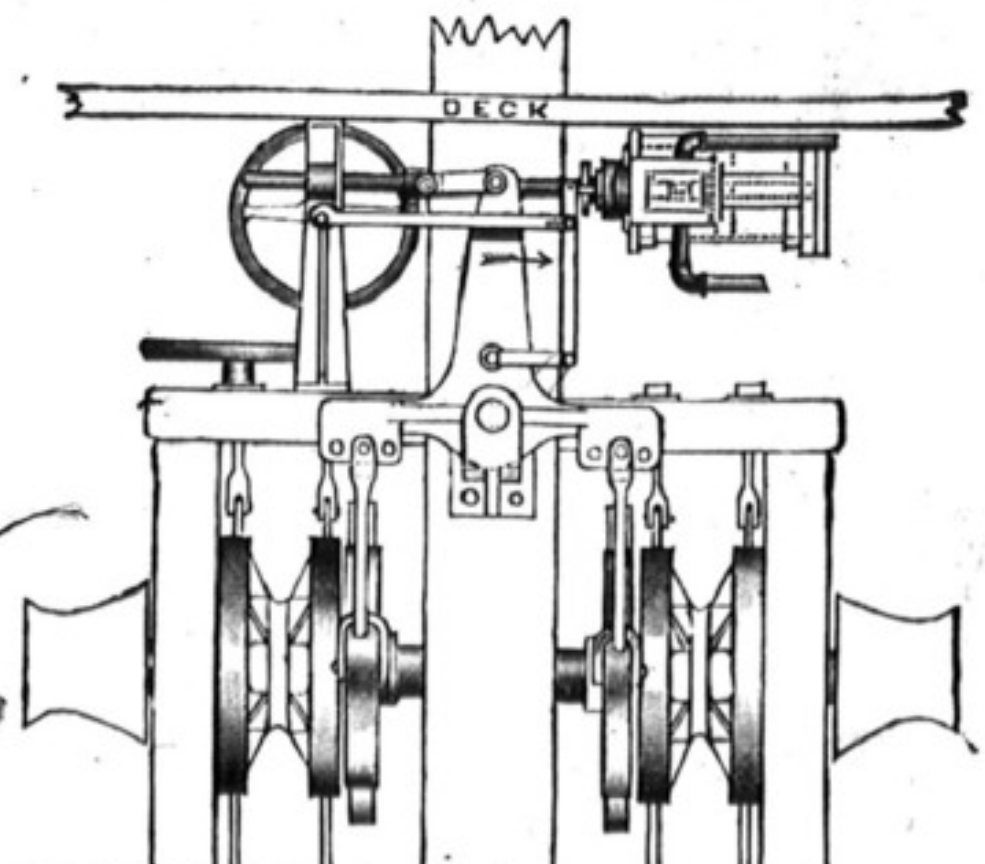
Ship Chandler's List.



Celebrated Chain Sheave Windlass, with Amazeen Beam.



The Common Patent Windlass.



Globe Iron Works Patent Steam Windlass